

PHD SEMINAR



13/05/2016 - 16H - CONF ROOM

Alexis Coullomb: Active substrates to decode mechanotransduction

Mechanotransduction is the ability for cells to probe their mechanical environment and react to it, biochemically and mechanically. It plays a major role in development, wound healing, sensory systems, as well as in bone disease and cancer.

Here I will present how we intend to decipher the transfer function of cells instead of studying the (far too) many pathways involved in mechanotransduction. In order to control the mechanical environment of cells we use active substrates, that also allow us to read the mechanical response thanks to TFM (Traction Force Microscopy). Then we use FRET (Forster Resonance Energy Transfer) Microscopy to read the biochemical response of cells.

And I may talk about the effects of ultrasounds on cells...

